

**THE PUBLIC SAFETY WIRELESS NETWORK (PSWN) PROGRAM  
AND  
THE FEDERAL LAW ENFORCEMENT WIRELESS USERS GROUP  
(FLEWUG)**

**STATUS REPORT  
JANUARY 1998—JUNE 1998**

**JULY 1998**

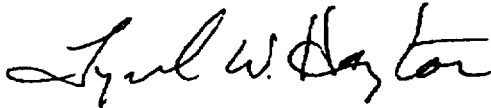
## PREFACE

This report addresses the activities of the Public Safety Wireless Network (PSWN) Program Management Office (PMO) and the Federal Law Enforcement Wireless Users Group (FLEWUG) from January 1998 to June 1998. It summarizes actions taken by the PSWN PMO and the FLEWUG toward achieving the objectives of the PSWN program.

Future reports will be prepared and distributed on the following schedule:

- A July–December Status Report will be released in February of each year.
- A January–June Status Report will be released in August of each year.

Additional information about the PSWN program and FLEWUG can be obtained by calling 1-800-565-PSWN or by visiting the Web site at [www.pswn.gov](http://www.pswn.gov).



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## **1.0 PROGRAM OVERVIEW**

As a result of the National Performance Review, now known as the National Partnership for Reinventing Government (NPRG), the Department of the Treasury and the Department of Justice entered into a Memorandum of Understanding (MOU) that formally recognized the Federal Law Enforcement Wireless Users Group (FLEWUG). The MOU tasked the FLEWUG with planning the development of the Public Safety Wireless Network (PSWN). Each Department agreed to provide the resources necessary for program execution.

The responsibility for this program is equally divided between the two Departments. One agency from each Department was selected to Co-Chair the FLEWUG: the U.S. Secret Service (USSS) for Treasury and the Federal Bureau of Investigation (FBI) for Justice. Together, the USSS and FBI are the lead federal agencies, forming the core of the program management team. These agencies are responsible for developing requirements and obtaining the budget and personnel resources needed to support the program.

Fiscal Year 1997 marked the start of Phase I of the PSWN program—the implementation planning phase. Fiscal Year 1998 is the second year of a 5-year process focused on developing an implementation plan for establishing a nationwide, interoperable public safety wireless communications system.

This report summarizes the activities of the PSWN Program Management Office (PMO) during the second and third quarters of FY 1998. The organization of the report has been modified from previous versions to be more consistent with the program's five-year plan. Activities planned or underway for July through December 1998 are also summarized.

## **2.0 ACHIEVING PROGRAM OBJECTIVES DURING THE PERIOD**

**January 1998 through June 1998**

### **2.1 National Partnership for Reinventing Government (NPRG) Objectives**

The NPRG objectives deal with items related to the PSWN program and the FLEWUG as stated in pertinent documents of the Vice President's "Reinventing Government" initiative. These documents are the *Access America – Reengineering Through Information Technology* report, dated February 3, 1997, and the earlier *Information Technology Initiatives* report. Five specific actions are identified in A06 of the *Access America* report for establishing an intergovernmental wireless public safety network – coordination, spectrum, standards, security, and funding. The following is a list of those actions and subsequent tasks:

#### ***Improve the coordination of public safety wireless communications.***

- Sponsored, organized, and conducted two Shared Systems Symposiums. A total of 214 public safety officials attended the symposium in Sacramento, California in March 1998, and 174 public safety officials attended the symposium in Lynnfield, Massachusetts, near Boston, in June 1998. Presentations focused on planning, design, financing, and management of specific shared systems. The Boston symposium featured two pre-symposium tutorials, "System Planning From A-Z" and "Let's Talk About Trunking."
- Developed and distributed a nationwide Fire/EMS Interoperability Survey to determine fire and EMS communication interoperability requirements, identify communication interoperability shortfalls, and determine the current and future communication infrastructure for fire and EMS agencies. To date, approximately 25 percent of the 3,339 questionnaires have been returned. This effort is progressing in partnership with affiliated organizations, including the International Association of Fire Chiefs, the Forestry Conservation Communications Association, the National Association of State EMS Directors, the Association of Public-Safety Communication Officials – International, the National Institute of Justice (NIJ), the National Law Enforcement and Corrections Technology Center, and the Federal Communications Commission (FCC). The results of this effort will complement those of a law enforcement interoperability survey conducted by NIJ.

#### ***Provide an adequate radio frequency spectrum for public safety agencies.***

- Developed the *Public Safety and Radio Spectrum Guide* in cooperation with the Office of the Attorney General and the National League of Cities. The Attorney General provided copies of the guide to Members of Congress and featured it at a prominent function addressing fire safety. The guide is intended as a catalyst for actions to address standing public safety spectrum issues. To date, approximately 8,000 copies have been produced and distributed.

- Worked with FLEWUG member agencies to develop and file comments and reply comments to Notice of Proposed Rulemaking (NPRM) 96-86 regarding service rules for the newly allocated 24 megahertz (MHz) of public safety spectrum. Made ex parte presentations at the FCC addressing priority positions. Supported the Associate Attorney General who made an ex parte presentation to the FCC on behalf of federal public safety interests.

***Support the development of technical standards for  
public safety wireless communications systems.***

- Completed the data collection phase of the Pittsburgh, San Diego, and Washington, DC, case study efforts, and deployed data collection teams to the border region from Yuma County, Arizona, to Cameron County, Texas, to initiate the Southwest Border requirements analysis. Case study activities establish a knowledge base of current public safety radio communications systems, particularly as with respect to interoperability. The knowledge gained regarding current and future technologies will be used to help identify appropriate support for technical standards development.

***Include security in all public safety land mobile radio systems.***

- Assumed leadership in the area of security for public safety digital LMR systems by developing a security problem statement and awareness briefing for digital LMR. The awareness briefing is being used to inform decision-makers, public safety personnel, and those involved in standards development. Begun security field data collection efforts and an assessment of applicable security requirements, standards, and guidelines.
- Assumed leadership for assessing the implications of new responsibilities for event and infrastructure protection assigned under Presidential Decision Directives (PDDs) 62 and 63. Observed operations and assessed intra- and interagency communications at the United Nations Drug Summit in New York City. Began preparations to assess operations at the Houston World Energy Congress, the first official major event covered under the directives.

***Establish an alternative funding mechanism for federal, state, and local public safety officials  
to improve their wireless communications systems.***

- Continued discussions with senior level officials to address funding requirements for public safety wireless communications. Based on the A06 guideline and *The Report on Funding Mechanisms for Public Safety Radio Communications* developed by the PSWN program, the Attorney General established the Interagency Working Group on Funding (IWGF). The IWGF consists of members from the Departments of Justice, the Treasury, Commerce, and the FLEWUG. Other participating agencies include the departments of Agriculture and the Interior, the FCC, the Federal Emergency Management Agency, the Office of Management and Budget, and the PSWN Program Management Office. The IWGF is formulating recommendations for a federal grant program to assist states in the planning and demonstration phases of statewide system development efforts.

- Completed a nationwide study to estimate replacement costs of installed local, state, and federal land mobile radio (LMR) user equipment and infrastructure. These costs are estimated at \$18.3 billion—\$15.4 billion for local, \$1.7 billion for state, and \$1.2 billion for federal. These figures reveal the significant investment made in public safety LMR systems and the magnitude of the funding required for system replacements. These figures were used by the IWGF to further establish the need for funding support from the Federal Government.

## **2.2 Other PSWN Program Initiatives**

In addition to NPRG objectives, the PSWN program is engaged in a broad set of complementary activities designed to achieve the program's strategic goals and objectives. Results and statuses of these activities are presented in this section and are organized under the headings: program communications and outreach, systems development support initiative, and program management. These activities are designed to contribute to the PSWN program's ability to plan and foster interoperability.

### ***Program Communications and Outreach***

- The outreach initiative comprises activities designed to encourage coordination, collaboration, and sharing of information among members of the public safety community. The following items describe the activities that relate to this initiative:
- Developed language for a feature article in *Radio Resource* magazine that highlights the symposiums and describes the PSWN program origin and structure. The article will be published in a special edition of *Radio Resource* to be distributed at the annual meeting of the Association of Public-Safety Communications Officials-International. This will provide broad visibility to interoperability issues and the efforts of the program.
- Participated in the Colorado Interoperability Forum. Briefed the PSWN program update, discussed interoperability from a federal perspective, and participated in panel discussions.
- Participated in the Information Management Technology Conference of the International Association of Chiefs of Police. Delivered the PSWN program status briefing to the Law Enforcement Information Management committee.
- Established and maintained the PSWN program Web site ([www.pswn.gov](http://www.pswn.gov)). The site became available to the public on March 4, 1998. Updated the Web site with current program reports, symposium materials, and other items of interest to the community.

### ***Systems Development Support Initiative***

The systems development support initiative comprises activities that establish a knowledge base of current public safety radio communications systems, particularly as with respect to interoperability. The knowledge gained leads to recommendations for improvements and installations of interoperable pilot systems. The following items describe the activities that relate to this initiative:

- Completed the data collection and data characterization phases of the Pittsburgh case study to fully understand factors such as communications resources, needs, and interoperability requirements for federal agencies in the region. Recommendations for near- and long-term solutions that address the needs of the participating agencies are being developed.
- Completed the data collection phase of the San Diego case study. The data characterization of the local, state, and federal public safety communications environment of the San Diego/Imperial county region is nearing completion. As part of this effort, developed an issue paper to foster support among senior government decision-makers for planning and implementing an interoperable wireless communications network for the region.
- Completed the data collection phase of the Washington, DC, case study. The data is being analyzed for factors such as radio traffic patterns, technology application, security requirements, and spectrum utilization. This information is shaping recommendations and proofs of concept to suggest interoperability improvements among local, state, and federal organizations in the Washington, DC, metropolitan area.
- Deployed data collection teams to the border region from Yuma County, Arizona, to Cameron County, Texas, to initiate the Southwest Border requirements analysis. This effort is expected to lead to pilot projects and demonstrations to foster interoperability.
- Participated, as an observer, in mock prison riots at the former West Virginia Penitentiary in Moundsville, West Virginia. The event, sponsored by NIJ's Office of Law Enforcement Technology Commercialization, showcased the use of new technologies during several riot and hostage scenarios. Observations, communications requirements, and interoperability difficulties were captured in an after-action report.
- Coordinated vendor demonstrations of emerging technologies that can be incorporated into public safety wireless systems to improve interoperability. Demonstrations addressed various aspects of digital radio technology and the hardware and software needed to support interoperability requirements.
- Completed an assessment of the relative merits of 800 MHz as an operating frequency for public safety. The report is a useful reference for organizations considering migration to 800 MHz systems. This effort also assisted the FLEWUG in developing NPRM 96-86 responses.
- Completed a "how to" guide on federal spectrum management processes. Acquiring frequencies is an essential part of developing an LMR system. The guide should assist radio managers to navigate through frequency assignment and administrative procedures.
- Completed an analysis of Nextel, a major provider of specialized mobile radio services. The analysis included a corporate profile and overviews of Nextel services, networks, and public safety subscribers. The analysis was undertaken in direct response to public safety organizations around the nation subscribing to Nextel services. The final report is intended to help decision-makers and communications managers better understand the implications of using Nextel services for public safety communications.

### ***Program Management***

Program management activities address the organization and functioning of the FLEWUG and the PSWN PMO. The following items describe these activities for this period:

- Established the chairperson's position for the Senior Advisory Panel (SAP). Prepared materials for the first chair, who is the current Commissioner of the U.S. Customs Service (formerly, the Under Secretary for Enforcement, Department of the Treasury). The SAP will provide senior leadership on *Access America* items and guidance to the PSWN PMO.
- Coordinated the activities of three Integrated Program Teams (IPTs). The Spectrum IPT addressed the completion of the 800 MHz study and the FLEWUG's NPRM 96-86 activities. The Security IPT addressed the completion of the security problem statement and briefing for digital LMR. The Fire/EMS IPT provided oversight to the on-going interoperability study.
- Developed the PSWN Program Strategic Plan, which is part of the PSWN Program Five-Year Plan. The strategic plan provides the program's vision, mission, and strategic goals and objectives. It also describes the operating framework for determining annual activities.
- Updated the other elements of the PSWN Program Five-Year Plan, including the current-year performance plan, the pending-year performance plan, and the long-term plan, which is an out-year forecast for the three-year period beyond the pending year.
- Addressed inquiries from OMB and other senior Executive Branch officials regarding various matters, including program accomplishments, consistency among LMR development efforts, and relationships to other issues (e.g., counter-terrorism, wireless 911).
- Hosted several meetings of the FLEWUG and PSWN program participants to discuss current issues and upcoming events, and to provide an opportunity for information exchange. Held a session of the FLEWUG with the State of Montana to discuss its statewide system. Placed the Year 2000 issue on the FLEWUG's agenda and established an IPT to address this issue.
- Maintained and managed operations of the program's Technical Resource Center (TRC), including facilities and support systems (e.g., modeling and simulation resources, computer networks, the PSWN program Web site, the program's points-of-contact database).



### **3.0 ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD**

**July 1998–December 1998**

#### **3.1 National Partnership for Reinventing Government Objectives**

- Complete a characterization of the equipment inventory data collected as part of the replacement cost study. This analysis will produce additional insights into the current complement of infrastructure and user equipment in use by the public safety community.
- Make additional contributions to FCC NPRM 96-86 and related follow-on activities to advance FLEWUG positions. Monitor and contribute to other spectrum-related rulemakings and policy developments to address remaining PSWAC spectrum recommendations.
- Complete efforts to clarify and document (as “how to” guides) for the public safety community the steps required to obtain spectrum. These spectrum management processes are different for federal and local/state public safety entities. A comparison analysis should help inform discussions about how to reconcile differences between the processes to better support shared systems development.
- Complete security field data collection efforts for two digital LMR systems to evaluate risks, vulnerabilities, and mitigation schemes. Publish recommendations for digital LMR security requirements, standards, and guidelines. The field reports and recommendations will form the basis for a security plan template suitable for use by radio system developers.
- Publish the results of the nationwide survey of the interoperability needs of the fire and EMS communities. Combine these results with those of the NIJ's law enforcement interoperability survey. This integrated analysis will establish a baseline of information regarding the interoperability needs of the three major public safety communities.

#### **3.2 Other PSWN Program Initiatives**

##### ***Program Communications and Outreach***

- Sponsor, organize, and conduct quarterly PSWN program symposiums. Symposiums in Chicago, Illinois, and Mesa, Arizona, are planned for September and December, respectively. The Chicago symposium will include a tutorial on FCC frequency refarming activities.
- Publish a guide on interoperability issues similar to the *Public Safety and Radio Spectrum Guide*. The interoperability guide will help inform senior decision-makers about the need for interoperable communications and the challenges to be resolved to achieve interoperability.

### *Systems Development Support Initiative*

- Continue to evolve the Pittsburgh, San Diego, and Washington, DC, case study efforts by analyzing collected data, and developing recommendations and proofs-of-concept. Develop an implementation plan for pilot projects based on completed case studies. Plan the implementation of pilot projects in Pittsburgh and San Diego. Pilot projects will be used to perform demonstrations of interoperability solutions and their operational benefits.
- Coordinate with The Interdiction Committee (TIC) and hold a series of joint focus group sessions with users of LMR systems from federal agencies with public safety missions along the Southwest Border. The TIC includes representatives from the U.S. Customs Service, the Immigration and Naturalization Service, the Drug Enforcement Administration, and the U.S. Coast Guard. Focus group findings will be incorporated into the PSWN program's Southwest Border requirements analysis and will be provided to the TIC.
- Complete the Southwest Border requirements analysis. Develop results and recommendations that could serve as the basis for a regional proof-of-concept and a subsequent pilot project for demonstration purposes. Any such effort would likely build on the San Diego pilot system.
- Plan and perform data collection for the Salt Lake City case study. Salt Lake City is an area of interest due to the 2002 Olympics and federal grants from the Department of Justice supporting Utah state efforts to develop a shared land mobile radio system.
- Integrate an existing response simulator for the FBI's National Crime Information Center 2000 system into the TRC. Develop a personal computer version of the response simulator. These simulation capabilities will support wireless testbeds developed in partnership with law enforcement agencies in Maryland, North Carolina, Virginia, and Wisconsin.
- Develop a joint PSWN/Advanced Law Enforcement and Response Technology (ALERT) interoperability testbed in the metropolitan Washington, DC area. The purpose of the testbed is to explore a variety of ways to achieve wireless interoperability solutions that integrate into the ALERT platform.

### *Program Management*

- Conduct the inaugural meeting of the SAP, which is scheduled for September 10, 1998.
- Update the PSWN Program Five-Year Plan, address inquiries from OMB, host PSWN/FLEWUG meetings, coordinate IPT activities, and maintain TRC operations.

**THE PUBLIC SAFETY WIRELESS NETWORK (PSWN)  
AND  
THE FEDERAL LAW ENFORCEMENT WIRELESS USERS GROUP  
(FLEWUG)**

**STATUS REPORT**

**JULY 1997 – DECEMBER 1997**

**JANUARY 1998**

## **PREFACE**

This report addresses the activities of the Public Safety Wireless Network (PSWN) Program Management Office (PMO) and the Federal Law Enforcement Wireless Users Group (FLEWUG) from July 1997 to December 1997. It summarizes actions taken by the PSWN PMO and the FLEWUG toward achieving the objectives of the PSWN program.

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## **PROGRAM OVERVIEW**

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The responsibility for this program is equally divided between the two departments. One agency from each department was selected to Co-Chair the FLEWUG: the US Secret Service (USSS) for Treasury and the Federal Bureau of Investigation (FBI) for Justice. Together, the USSS and FBI are the lead federal agencies, forming the core of the program management team. These agencies are responsible for developing requirements and obtaining the budget and personnel resources needed to support the program.

Fiscal Year 1997 marked the start of Phase I of the PSWN program – the planning and proof of principle phase. Phase I is a five-year process focused on planning the implementation of a nationwide, interoperable network for public safety communications.

This report summarizes the activities of the PSWN Program Management Office (PMO) during the fourth quarter of FY 1997 and the first quarter of FY 1998, i.e., from July 1997 through December 1997. Activities planned or underway for 1998 are also summarized.

## **ACHIEVING PROGRAM OBJECTIVES DURING THE PERIOD**

**July 1997 to December 1997**

### **Program Management Objectives**

Program Management Objectives deal with the organization and functioning of the FLEWUG and of the PSWN PMO. The following items describe the activities that relate to these objectives:

- Established new contractor support for the program, putting in place a contract (base year plus three option years) that includes program management, planning, policy, analytical, technical, facilities, and other administrative support.
- Completed the transition from the previous contractor, including transferring assets (e.g., documentation, hardware, software, and data sets), conducting program orientation, and hosting a series of meetings to provide direction and guidance in assignment execution.
- Successfully coordinated, designed, constructed, and transitioned to the new PSWN Technical Resource Center (TRC) in Fairfax, VA. The facility houses the PMO and includes a modeling and simulation center, a library, a demonstration room, and other resources essential to achieving the objectives of the program. The facility has already been used to host PSWN and FLEWUG meetings, Integrated Program Team meetings for specific PSWN tasks, and sessions of the joint NTIA-FCC working group. The facility has also been used to perform technology and capabilities demonstrations to the public safety community.
- Hosted a PSWN strategic planning session with federal stakeholders to help define the direction and key initiatives for the PSWN program over the next year (near term) and the ensuing two years (long term). This session provided a broad range of perspectives and ideas on program evolution and execution. This input will be evaluated and refined for incorporation into the five-year plan for the program.
- Initiated discussions to host a PSWN Home Page on the World Wide Web (WWW), establishing an electronic point of presence on the Internet. This web page will serve to post upcoming events for the program, allow for more streamlined document distribution, and promote more immediate information exchange among program participants. In support of this effort, the PMO developed a white paper describing the PSWN internet requirements.
- Briefed the GITS Board as well as senior executives within the Treasury and Justice Departments on program status and continued efforts to establish the Senior Advisory Panel.

## National Performance Review (NPR) and Government Information Technology Services Board (GITS) Objectives

The NPR and GITS objectives deal with items related to the PSWN and the FLEWUG as stated in pertinent documents of the Vice President's "Reinventing Government" initiative. These documents are *Access America - Reengineering Through Information Technology* report, dated 3 February 1997, and the earlier *Information Technology Initiatives* report. The following items describe the activities that relate to these objectives:

- Provided input into a draft Executive Order that, if implemented, would assist with achieving the actions set forth by *Access America* A06 for interoperable public safety communications. The draft language calls for the development of an action plan by the FLEWUG and establishing, in a manner consistent with the action plan, a set of task forces to address critical issues such as spectrum, technical standards, security, and funding
- Initiated a study of 800 MHz land mobile radio systems, interviewing users and systems planners nationwide to obtain their perspectives on the effectiveness of using the 800 MHz portion of the spectrum for public safety use and its impact on interoperability. The study includes an analysis of propagation effects at different frequency bands. The differences and similarities in the planning and management processes that govern the different portions of 800 MHz spectrum available for use by state and local public safety agencies were also analyzed. The data gathered during these reviews has been useful in preparing the FLEWUG comments to the Federal Communications Commission (FCC) Notice of Proposed Rulemaking (NPRM) 96-86. The comments include recommended improvements to the processes.
- Documented funding mechanisms used by local, state, and federal public safety organizations to finance their communication systems. The *Report on Funding Mechanisms for Public Safety Radio Communications* helped to foster discussions for a senior level interagency working group on public safety funding. This effort led directly to the development of a white paper on funding strategies for public safety radio communications. This white paper was used as a spring-board for discussion at the first formal meeting of the recently formed working group.
- Initiated security assessments of public safety radio systems to understand potential risks and to identify mitigation strategies. A white paper that lays out a plan of action for security studies of digital land mobile radio systems was also developed. Efforts that will be undertaken include the development of a security problem statement, the performance of security field data collection, the identification of security requirements, guidelines, and standards, the security evaluation of vendor products, and the execution of security activities within testbeds.

## Technology Objectives

Technology Objectives focus on current and emerging wireless technologies and their use in supporting public safety communications requirements. Given the importance of technology to the PSWN initiative, the PMO is receptive to new technologies, methods, or processes for obtaining wireless systems or services. The following items describe the activities that relate to these objectives:

- Completed compilation and began analysis of data from the Pittsburgh case study. Data visualization tools have been used to characterize federal frequency use and assets for the Pittsburgh area. The PMO is conducting analyses to identify candidate solutions for near- and long-term implementation to foster interoperability in the region.
- Conducted extensive data collection for the Washington, DC and San Diego case studies. Performed over 400 interviews of system managers and users from over 200 public safety organizations in the Washington, DC and San Diego areas. This data is providing a solid foundation for analysis and recommendations that will address challenges to interoperability.
- Designed, developed, tested, and delivered InSite, a data visualization tool that provides a flexible means of graphically displaying data associated with the PSWN program. This tool satisfies two key needs. First, it provides a basis for performing “quick-look” analyses for the cases studies (e.g., to identify areas where a shared system may be feasible). Second, it provides compelling graphics for presenting data collection and analysis results at a variety of levels (e.g., for symposium presentations).
- Designed, developed, tested, and delivered a propagation plotting utility called “EDX\_Import.” This utility automates the process for importing site plots created using the commercial product EDX SignalPro into the commercial product MapInfo, a map-drawing software package.
- Continued communications and coordination with the office of the Director of Public Safety, State of Iowa, in preparation for participation in the Iowa radio systems interoperability demonstration.
- Conducted demonstrations of TRC tools and capabilities, including InSite, to various communities.



## Spectrum Objectives

Spectrum Objectives relate to radio frequency spectrum use and management. The following items describe the activities that relate to these objectives:

- Updated the *Spectrum Analysis Program Plan*, which describes how the PSWN program is approaching spectrum issues, the activities it has designed, and the ways in which these activities relate to one another. The plan presents the purpose, objectives, and approach for the three activities that constitute the PSWN spectrum program: the frequency usage study, the spectrum policy and legislation analyses, and radio spectrum modeling and simulation.
- Coordinated the development and filing of the FLEWUG comments to the FCC NPRM 96-86, submitting the response on December 22, 1997. The comments included FLEWUG perspectives and recommendations regarding: the definition of "public safety service provider," to ensure the inclusion of federal agencies; the need for interoperability spectrum in each public safety band; the mechanism for planning and managing the use of interoperability spectrum; the availability of general use spectrum; the modification of the current regional planning process to ensure greater coordination; the eligibility and licensing requirements for both interoperability and general use spectrum; and technical parameters that relate to all public safety channels.
- Developed the *Radio Spectrum Policy and Legislative Issues Report* to provide the public safety community with an understanding of the processes involved in the allocation, regulation, and management of spectrum. The report highlights the relative roles of the FCC and the NTIA in the regulation of spectrum, and provides an overview of recent coordination efforts of the FCC and the NTIA (e.g., their joint sponsorship of the Public Safety Wireless Advisory Committee and their newly created joint working group).
- Developed the initial *Commercial Spectrum Auctions Report* to inform the public safety community regarding the auction process used by the FCC to make spectrum available to commercial service providers. This report includes an examination of spectrum auctions and licensing procedures as well as detailed accounts of the 14 commercial auctions conducted to date by the FCC.
- Prepared and distributed the PSWN *Monthly Spectrum Legislation and Policy Reports* to PSWN and FLEWUG stakeholders to help them track and better understand current events and issues associated with public safety radio communications. Federal legislative activities, recent developments at the FCC, related industry trends, and other policy issues germane to public safety communications were reported on a monthly basis beginning in August 1997.

## Partnership Objectives

Partnership Objectives deal with the coordination between federal, state, and local public safety organizations. The following items describe the activities that relate to these objectives.

- Participated in the Western Wireless Emergency Communications Conference, presenting the objectives and initiatives of the PSWN program. Through this forum, key contacts were initiated with representatives from local municipalities and with the office of the United States Attorney for the Southern District of California. This office is responsible, in part, for the coordination of federal law enforcement agencies along the Southwest border. These contacts proved valuable for initiating the PSWN San Diego case study, and they will be relied upon again to initiate the Southwest Border case study.
- Presented the PSWN Program objectives and initiatives, as well as other materials related to public safety communications, to various communities, including the Association of Public-Safety Communications Officials–International (APCO), the International Association of Chiefs of Police (IACP), the Federal Wireless Users Forum (FWUF), and the National Communications System (NCS).
- Sponsored, organized, and conducted a Shared Systems Symposium in Charlotte in August 1997, providing a forum for discussion of key issues facing public safety communications. Over 100 public safety stakeholders participated in this event. The overwhelmingly positive reaction to the symposium has led the PMO to plan future such activities.
- Sponsored, organized, and conducted a PSWN Symposium on multi-jurisdiction, multi-discipline issues in public safety radio communications. The event was hosted by the Commonwealth of Pennsylvania and took place in Harrisburg, PA, in November 1997. Over 150 public safety stakeholders participated in the symposium. Results of the PSWN 800 MHz and funding studies were highlighted.
- Providing resources in a joint effort with the National Institute of Justice (NIJ), the FCC, APCO, and the International Association of Fire Chiefs (IAFC) to discuss the fire and emergency medical services (EMS) follow-on to the NIJ Law Enforcement Interoperability Study.
- Hosted several meetings of the FLEWUG and the PSWN to discuss current issues and upcoming events, and to provide an opportunity for information exchange.

## **ACTIVITIES SCHEDULED FOR THE NEXT REPORTING PERIOD**

**January – June 1998**

- Establish the Senior Advisory Panel (SAP), made up of senior executives from federal and state/local public safety organizations, to provide direction and guidance to the program.
- Complete the PSWN Program Five-Year Plan, which will include updates to the current (FY98) and pending (FY99) Integrated Activity Plans (IAPs) and the long-term plan (FY00 through FY02). The IAPs provide information on studies to be undertaken, research to be conducted, technical issues to be addressed, testbeds and demonstrations to be implemented, tests and proofs of concepts to be performed, and other activities that must be undertaken in support of the program. Each IAP includes milestones, performance measures, and resource requirements. The long-term plan will integrate inputs from the strategic planning session and meetings of the advisory panel to provide long-range objectives and expected outcomes.
- Develop a layperson's guide for radio communications as an aide for senior government officials and other high-level personnel who need to deliberate on important issues related to interoperability, spectrum, radio systems development, etc.
- Establish the PSWN Web Page on the Internet, facilitating awareness of upcoming events and fostering improved access to PSWN resources. The PSWN site will be populated with project reports and maintain currency of the material posted at this site.
- Participate in the interagency working group that has been established to address funding needs for public safety wireless communications by performing background research on relevant issues, contributing to discussions, supporting strategy development, preparing framework studies, and assisting with the development of final recommendations.
- Complete a nationwide study of replacement costs of installed federal, state, and local LMR systems, inclusive of user equipment and infrastructure. Determine aggregate estimates of replacement costs. The efforts will be coordinated with the funding working group.
- Complete the Pittsburgh, San Diego, and Washington, DC case studies. Opportunities for collocating antennas, sharing frequencies, and/or sharing systems will be identified, analyzed, and shared with appropriate study participants. Testbed and demonstration opportunities in each of the case study areas will be identified to foster understanding of interoperability challenges, emerging technologies, and security issues.
- Develop additional tools that support the collection and analysis of information on public safety radio communications. These tools include spectrum monitoring, data visualization, and interoperability modeling and analysis.
- Monitor the development of the Iowa testbed, coordinating with the Director of the Iowa Department of Public Safety. This test is a proof-of-concept demonstration for achieving interoperability at the network level through the use of a broadband fiber optic system.

- Develop FLEWUG Reply Comments to the FCC NPRM 96-86, ensuring that the interests of the federal law enforcement community are addressed, and monitor and contribute, as appropriate, to the ensuing rulemaking deliberations
- Perform the frequency usage study for federal agencies and for state and local entities, and share the results of this study as appropriate to inform deliberations of the FCC, the NTIA, and other entities regarding frequency use, management, planning, and coordination.
- Continue to monitor and share information regarding spectrum legislation and policy through the *PSWN Monthly Legislation and Policy Reports*. Spectrum auctions will continue to be monitored and reported through updates to the *Commercial Spectrum Auctions Report*.
- Continue development of commercial service assessment reports and expand the effort to include an evaluation of Nextel specialized mobile radio services.
- Begin work on developing information system security guidelines, standards, and procedures applicable to digital land mobile radio equipment and systems.
- Continue development of an LMR procurement tracking database and perform assessments of procurement trends, particularly at the state and local levels.
- Conduct a nationwide survey to understand interoperability requirements of the fire and EMS communities. This effort is designed as a companion to the law enforcement interoperability study performed by the NIJ. The objective is to develop a complementary interoperability profile of the other major portion of the public safety community.
- Sponsor, organize, and conduct the next PSWN Symposium, to take place March 3, 4 and 5, in Sacramento, CA. This event will be hosted by the State of California and will build upon the discussions of the previous two symposiums. The program will sponsor, organize, and conduct the subsequent PSWN Symposium, tentatively scheduled for the May/June timeframe.
- Design and publish the first PSWN newsletter, which will be distributed broadly to PSWN participants, and have the schedule of PSWN events published in the calendar of events featured in several trade magazines. The program will write and submit for consideration a PSWN article suitable for inclusion in trade publications.
- Continue efforts to establish a dialogue with representatives of state governments who are planning to build statewide LMR systems for use by state agencies. (Such dialogues are underway with Pennsylvania and New York.) These discussions will help determine how the PSWN program can plan for interoperability nationally, and how the Federal Government can benefit by participating in the development and use of these systems. The discussions will help to identify specific legal, regulatory, spectrum, and funding issues that might affect the use of statewide systems to foster interoperability.